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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,069

04/21/2006

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6116

1444 7590 04/28/2009
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EXAMINER

MERLINO, ALYSON MARIE

ART UNIT

PAPER NUMBER

3673

MAIL DATE

DELIVERY MODE

04/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

1. The examiner acknowledges applicant's amendments to 22-27, 29-31, and the addition of new claim 33, and the cancellation of claims 1-21, 28, and 32 filed 14 October 2008.

Claim Objections

2. **Claim 33 is objected to** because of the following informalities: In lines 12 and 13, it is suggested that the reference characters be removed, and in line 36, the phrase "an abutting the mechanical part" should be "and abutting the mechanical part." Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 22-27, 29-31, and 33 are rejected** under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. **In regards to claim 27, line 26, and claim 33, line 34**, the language recites that the cap is "latched" to the key. This limitation of latching requires some type of locking components, but the claim fails to disclose any structural components that would "latch" the key and cap together. For examination purposes, the claim will be given a broad interpretation until further clarification from applicant.

6. **In regards to claim 27**, it is unclear what the interrelationship is between the second antenna and the at least one second storage module since the claim recites that

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the second antenna is engaged over the at least one second storage module, but does not recite which component or portion of the device the second antenna is engaging.

Furthermore, it is unclear how the second antenna is over the at least one second storage module, since Figure 6 shows the antennas 8a and 9a over the second storage modules 8 and 9 in cross-section, but the specification only states that the second storage modules and the antennas are inserted in pockets 6 of the cap, with no reference to whether the storage modules are located within the antennas. For examination purposes, the claim will be given a broad interpretation until further clarification from applicant.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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9. **Claim 27 is rejected** under 35 U.S.C. 103(a) as being unpatentable over Lerchner et al. (US-5878611) in view of Leuling et al. (WO02075669), in further view of Bishop et al. (US-5181605), in further view of Tanaka et al. (US-4922736), and in further view of Levine et al. (US-5113602). Lerchner et al. discloses an electronic locking device having at least one lock unit 29 and a security key 2, wherein the security key includes a control circuit and transmitting and receiving circuit which transmits information signals to the control circuit 30 of the other respective unit that is contained in one unit with the storage module 20 (Col. 3, lines 17-21 and lines 33-40). Lerchner further discloses that the security key has a mechanical part (portion between reference characters 7 and 6, Figure 1) with a shank 5 engaged together by an extended shank region (portion between reference characters 32 and 11, Figure 1). The shank has control areas (portion engaged with lock unit, Figure 3) and the extended shank region has a recess 25 along an axis (axis extending from reference character 7 to reference character 5, Figure 1) of the security key in which at least one first data storage module 20 connected to a first antenna 22 is engaged (Figure 2). The first data storage module is inserted into a recess 25 in the mechanical part, and a recess 25' holds a second antenna 21. Lerchner et al. discloses the first data storage module, but lacks at least a second data storage module that can be or is fitted in the other recess 25' symmetric to the recess having the first data storage module with its own antenna and operates at a different frequency than that of the first module. Leuling et al. teaches a security key 1 having two data storage modules 7, 8 capable of operating at two different frequencies (paragraph 11 of the translation). Since the security key disclosed by Lerchner et al.

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has a second recess for capable of holding a second data storage module and Leuling et al. teaches the use of two data storage modules with two different frequencies in a security key, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add another data storage module to the key disclosed by Lerchner et al. since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. Furthermore, it is obvious that when the at least one second data storage module is fitted in recess 25' the second antenna 21 would be located over the at least one storage module when viewing the cross-section of the key of Lerchner et al. shown in Figure 4 from the direction of reference character 17.

Lerchner in view of Leuling et al. fails to teach a cap formed as a unit engageable over an upper side and a lower side of the mechanical part and the extended shank region, with the cap having an upper edge with a first slot and a lower edge with a second slot communicating with a chamber that is capable of accommodating the at least one second data storage module and the second antenna. Bishop et al. teaches a cap 18 formed as a unit and having an upper edge with a first slot 34 and a lower edge with a second slot 38, and the first slot and second slot communicating with a chamber 36 within the cap. Bishop et al. further teaches that the cap is engageable over an upper side (side at reference character 14 of key 12, Figure 7) and a lower side (apparent lower side opposite the upper side of key 12, Figure 7) of a mechanical part 14 and an extended shank region (region of key 12 located in slot 38, Figure 7) of a key 12. Bishop also teaches that the key 12 extends through the first slot and the second

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slot (apparent from Figure 7) and the cap abuts against the mechanical part (apparent that cap abuts mechanical part at reference character 68, Figure 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a cap with slots to cover and protect the components of the key taught by Lerchner et al. in view of Leuling et al. in order to enhance the security and durability of the key. Furthermore, it apparent that the at least second data storage module would be located in the chamber since the key would be located in the chamber for protection.

Lerchner in view of Leuling et al. in further view of Bishop et al. fails to teach at least one pocket recessed in a wall of the chamber of the cap, with the at least one second data storage module and the second antenna being inserted into the at least one pocket in the cap. Tanaka et al. teaches a security key 1 having a cap 3 including a chamber (apparent internal chamber of 3 surrounding the electronic components of the key, Figure 3) with the chamber including at least one pocket recessed in a wall of the chamber to accommodate electronic components (apparent pockets, such as below reference character 7 in Figure 3, for accommodating electronic components of the key, Figure 3). Since the inclusion of at least one pocket in a wall of the chamber of the cap taught by Bishop et al. would not hinder the ability of the cap to be located on the key, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include at least one pocket for reception of the at least one second data storage module and the second antenna since Tanaka et al. teaches that it is well known to have a cap for a key having electronic components received in pockets of the cap for protecting the electronic components.

Lerchner in view of Leuling et al. in further view of Bishop et al. in further view of Tanaka et al. teaches that the cap is secured to the key (apparent from Figure 7 of Bishop et al.), but fails to teach that the cap is latched to a recess on the key. Levine et al. teaches a cap 100 secured to a key 400 by latching to a recess 460 by component 380. Since specifying that the cap taught by Bishop et al. is latch to a recess on the key would not hinder the ability of the cap to protect the key, it would have been obvious to one of ordinary skill in the art at the time the invention was made to specify that cap is latched to the key in order to ensure that the cap remains on the key to protect it and its electronic components.

10. **Claims 22-26, 29-31, and 33 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Lerchner et al. (US-5878611) in view of Leuling et al. (WO02075669), in further view of Bishop et al. (US-5181605), in further view of Tanaka et al. (US-4922736), in further view of Levine et al. (US-5113602), and in further view of DiVito et al. (US-5423198).

11. **In regards to claims 24, 25, 30, and 33**, Lerchner et al. discloses an electronic locking device having at least one lock unit 29 and a metal security key 2 (Col. 2, line 61), wherein the security key includes a control circuit and transmitting and receiving circuit which transmits information signals to the control circuit 30 of the other respective unit that is contained in one unit with the storage module 20 (Col. 3, lines 17-21 and lines 33-40). Lerchner further discloses that the security key has a mechanical part (portion between reference characters 7 and 6, Figure 1) with a shank 5 engaged together by an extended shank region (portion between reference characters 32 and 11,

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Figure 1). The shank has control areas (portion engaged with lock unit, Figure 3) and the extended shank region has a recess 25 along an axis (axis extending from reference character 7 to reference character 5, Figure 1) of the security key in which at least one first data storage module 20 connected to a first antenna 22 is engaged (Figure 2). The first data storage module is inserted into an open recess 25 in the mechanical part, and a recess 25' holds a second antenna 21. Lerchner et al. discloses that on at least one side edge (side with first data storage module and antenna, Figure 3) of the extended shank region has a milled section 3 for reception of the first antenna. Lerchner et al. fails to disclose that the recess 25 is on the axis of the security key for reception of the first data storage module. Flies teaches a security key 12a having an extended shank region (portion extending between end with reference character 12a and end with component 46, Figure 1) with a recess 21 along and on an axis of the security key (axis extending between end with reference character 12a and end with component 46, Figure 1) in which a first data storage module 14 is engaged. Since the inclusion of a recess in the extended shank region along and on an axis of the security key disclosed by Lerchner et al. for the reception of the first data storage module would not hinder the ability of the key to cooperate with the lock unit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place the first data storage module in a recess along and on an axis of the security key in order to enhance the versatility and compactness of the key and since it has been held that rearranging parts of an invention involves only routine skill in the art.

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Lerchner et al. in view of Flies teaches the first data storage module, but lacks at least a second data storage module that can be or is fitted in the other recess 25' symmetric to the recess having the first data storage module with its own antenna and operates at a different frequency than that of the first module. Leuling et al. teaches a security key 1 having two data storage modules 7, 8 capable of operating at two different frequencies (paragraph 11 of the translation). Since the security key disclosed by Lerchner et al. has a second recess for capable of holding a second data storage module and Leuling et al. teaches the use of two data storage modules with two different frequencies in a security key, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add another data storage module to the key disclosed by Lerchner et al. since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. Furthermore, it is obvious that when the at least one second data storage module is fitted in recess 25' the second antenna 21 would be located over the at least one storage module when viewing the cross-section of the key of Lerchner et al. shown in Figure 4 from the direction of reference character 17.

Lerchner in view of Flies in further view of Leuling et al. fails to teach a cap formed as a unit engageable over an upper side and a lower side of the mechanical part and the extended shank region, with the cap having an upper edge with a first slot and a lower edge with a second slot communicating with a chamber that is capable of accommodating the at least one second data storage module and the second antenna. Bishop et al. teaches a cap 18 formed as a unit and having an upper edge with a first

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slot 34 and a lower edge with a second slot 38, and the first slot and second slot communicating with a chamber 36 within the cap. Bishop et al. further teaches that the cap is engageable over an upper side (side at reference character 14 of key 12, Figure 7) and a lower side (apparent lower side opposite the upper side of key 12, Figure 7) of a mechanical part 14 and an extended shank region (region of key 12 located in slot 38, Figure 7) of a key 12. Bishop also teaches that the key 12 extends through the first slot and the second slot (apparent from Figure 7) and the cap abuts against the mechanical part (apparent that cap abuts mechanical part at reference character 68, Figure 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a cap with slots to cover and protect the components of the key taught by Lerchner et al. in view of Leuling et al. in order to enhance the security and durability of the key. Furthermore, it apparent that the at least second data storage module would be located in the chamber since the key would be located in the chamber for protection.

Lerchner in view of Flies in further view of Leuling et al. in further view of Bishop et al. fails to teach at least one pocket recessed in a wall of the chamber of the cap, with the at least one second data storage module and the second antenna being inserted into the at least one pocket in the cap. Tanaka et al. teaches a security key 1 having a cap 3 including a chamber (apparent internal chamber of 3 surrounding the electronic components of the key, Figure 3) with the chamber including at least one pocket recessed in a wall of the chamber to accommodate electronic components (apparent pockets, such as below reference character 7 in Figure 3, for accommodating electronic components of the key, Figure 3). Since the inclusion of at least one pocket in a wall of

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the chamber of the cap taught by Bishop et al. would not hinder the ability of the cap to be located on the key, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include at least one pocket for reception of the at least one second data storage module and the second antenna since Tanaka et al. teaches that it is well known to have a cap for a key having electronic components received in pockets of the cap for protecting the electronic components.

Lerchner in view of Flies in further view of Leuling et al. in further view of Bishop et al. in further view of Tanaka et al. teaches that the cap is secured to the key (apparent from Figure 7 of Bishop et al.), but fails to teach that the cap is latched to a recess on the key. Levine et al. teaches a cap 100 secured to a key 400 by latching to a recess 460 by component 380. Since specifying that the cap taught by Bishop et al. is latch to a recess on the key would not hinder the ability of the cap to protect the key, it would have been obvious to one of ordinary skill in the art at the time the invention was made to specify that cap is latched to the key in order to ensure that the cap remains on the key to protect it and its electronic components.

Lerchner in view of Flies in further view of Leuling et al. in further view of Bishop et al. in further view of Tanaka et al. in further view of Levine et al. teaches the security key as discussed above, but fails to teach that the upper side and edges of the shank include bores having control areas. DiVito teaches a key (Figure 2) with a shank (portion at reference character 22, Figure 2) with an upper side and edges including bores (apparent from Figure 2). Since the inclusion of bores would not hinder the ability of the key to include its electronic components, it would have been obvious to one of

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ordinary skill in the art at the time the invention was made to include bores on the shank of the key since it is well-known in the art to include bores on the shanks of keys for coding.

12. **In regards to claim 22**, Bishop et al. teaches that the cap is formed as a unit and is produced from plastic (Col. 2, line 56).

13. **In regards to claim 23**, Lerchner et al. in view of Leuling et al. in further view of Bishop et al. teaches that the at least one second data storage module is located in the cap below a head (top portion of mechanical part with hole, Figure 3) and adjacent to the extended shank region (apparent from Figure 3 and Leuling et al.).

14. **In regards to claim 26**, Lerchner et al. in view of Leuling et al. teaches that the security key can include first and second data storage modules operating at different frequencies. Leuling et al. further teaches that the different frequencies of the two data storage modules allow them to affect different components within an electronic locking device (paragraphs 23 and 24 of the translation), therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to specify that the second data storage module be capable of affecting a different component of the electronic locking device than the lock unit affected by the first data storage module since it is well-known to use different frequencies for different situations, i.e. send a signal to actuate an access control unit instead of a lock, as taught by Leuling et al.

15. **In regards to claim 29**, Lerchner et al. in view of Leuling et al. teaches that the mechanical part has laterally protruding regions beneath a head 6 of the mechanical

part (apparent from Figure 3 of Lerchner et al.), and the at least one second data storage module is arranged on at least one the lateral protruding regions (Figure 3).

Response to Arguments

16. Applicant's arguments filed 14 October 2008 and 27 January 2009 have been fully considered but they are not persuasive.

17. In regards to applicant's remarks concerning the Flies reference, as noted in the rejection above, Lerchner et al. discloses an open recess 25 for the first data storage module. Furthermore, it is clear that Flies discloses a key, see Figure 1.

18. In regards to applicant's remarks concerning the cap, Bishop et al. and Tanaka et al. teach that it is well known in the art to utilize a cap for protecting a key and the electronic components of the key.

19. In regards to applicant's remarks on the bottom of page 10, the examiner is not using applicant's disclosure as a road map for assembling the group of elements. It is clear that each reference discloses a key, and that the art teaches that electronic components of keys can be positioned at various locations on or in the key.

20. The examiner appreciates applicant's clarification to the remarks in response to the Non-Responsive action mailed 12 January 2009. Applicant is referred to the rejection of new independent claim 33 above.

21. Since applicant cancelled claim 21 and amended claim 27, the claim objections and rejections of the claims under 35 U.S.C. 112, second paragraph, set forth in the previous office action are withdrawn. As discussed above, a modified rejection of claim

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27 under 35 U.S.C. 112, second paragraph, regarding the "latched" limitation has been set forth.

Conclusion

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALYSON M. MERLINO whose telephone number is (571)272-2219. The examiner can normally be reached on Monday through Friday, 7:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on (571) 272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Peter M. Cuomo/
Supervisory Patent Examiner, Art Unit 3673

AM
April 24, 2009